

REMARKS

Claims 1-18, as amended, are pending in this application. In this Response, Applicant has amended certain claims. The Specification has also been amended to update the status of the parent. In light of the Office Action, Applicant believes these amendments serve a useful clarification purpose, independent of patentability. Accordingly, Applicant respectfully submits that the claim amendments do not limit the range of any permissible equivalents.

In particular, claims 1 and 15 have been rewritten to clarify the invention and various claims depending therefrom have been amended to maintain consistency with the language in these independent claims. As no new matter has been added by the amendments herein, Applicant respectfully requests entry of these amendments at this time.

THE REJECTION UNDER 35 U.S.C. § 112

Claims 1-9 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for the reasons provided on page 2 of the Office Action. Applicant respectfully submits that the term “low free” in claims 1, 2 and 8 is well understood by those of ordinary skill in the art to encompass those isocyanates that have a reduced content of free diisocyanate monomer. *See, e.g.*, Rosenberg at Para. 0005. In other words, the prepolymer formed from the low free isocyanate and the polyol contain reduced levels of unreacted isocyanate monomers or NCO groups. *Id.* at Para. 0010. For instance, Example 7 of the present application demonstrates a suitable low free isocyanate (HDI) as having 5.77 percent NCO groups. Written Description at Page 30. As such, this claim term has the ordinary and accustomed meaning that would be attributed to the term by persons skilled in the relevant art.

In addition, in light of the amendments to claim 1, the § 112 issue of concern to the Examiner regarding claim 9 is believed to be overcome. For at least these reasons, Applicant respectfully requests reconsideration and withdrawal of the §112 rejections.

THE REJECTION UNDER §§ 102 & 103

The Rejection Based Upon Rosthauser '490

Claims 1-9 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under § 103(a) as obvious over U.S. Patent No. 4,985,490 to Rosthauser *et al.* for the reasons stated on page 3 of the Office Action. As discussed in greater detail below, Rosthauser does not disclose or suggest the present invention.

For example, Rosthauser generally discloses a thermoplastic polyurethane powder suitable for use as a coating on metals, ceramics, stone, concrete, bitumen hard fibers, glass, porcelain, a variety of plastics, and glass fibers. Col. 12, lines 1-29. Rosthauser does not even suggest a golf ball layer, *i.e.*, a core, an inner layer disposed between the core and the cover, or a cover, that is formed of the presently recited composition. As known to those of ordinary skill in the art, coating compositions differ from compositions used to form structural layers of golf balls at least in viscosity and applied thickness.

In addition, Rosthauser is completely silent as to the use of a low free isocyanate, as presently recited. Thus, even assuming that a skilled artisan would have been motivated to use the coating composition to form a structural layer, *arguendo*, the resultant composition would have lacked the featured low free isocyanate.

For these reasons, Applicant respectfully submits that Rosthauser does not disclose or even suggest the present invention. As such, Applicant respectfully requests reconsideration and withdrawal of the §§ 102 and 103 rejections based thereon.

The Rejection Based on Wu '974

Claims 1, 3-6, and 9 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under § 103(a) as obvious over U.S. Patent No. 5,692,974 to Wu *et al.* as set forth on page 3 of the Office Action. Wu does not disclose or suggest the present invention.

Wu '974 generally discloses a cover material for golf balls that includes a positively charged ionomer, in the form of a urethane ionomer. *See, e.g.*, Col. 2, lines 41-50. In particular, Wu '974 teaches the reaction of a urethane, formed from a urethane prepolymer and curing agent, with an alkylating and/or quaternizing agent to form a urethane ionomer to be used in a golf ball cover. *See, e.g.*, Col. 5, lines 3-15. In contrast, claim 1 has been rewritten with the transition language "consisting essentially of," which excludes any additional ingredients that materially alter the recited composition. As known to those of ordinary skill in the art, the inclusion of an ionomer in a polyurethane-based composition materially alters the composition through the addition of an alkylating and/or quaternizing agent. *See, e.g.*, Col. 5, lines 6-15.

Thus, Applicant respectfully submits that Wu '974 does not anticipate or render obvious the present invention. As such, Applicant respectfully requests reconsideration and withdrawal of the §§ 102 and 103 rejections based thereon.

The Rejections Based on Rosenberg

The Examiner also rejected claims 15-18 under § 102(e) as anticipated by or, in the alternative, under 103(a) as obvious over U.S. Patent Publication No. 2003/0203771 to Rosenberg *et al.* for the reasons stated on pages 3-4 of the Office Action. In addition, claims 10-14 were rejected under § 103(a) as obvious over Rosenberg in view of U.S. Patent Publication No. 2002/0045696 to Sullivan *et al.* as provided on page 4.

According to MPEP § 2136.05, a 35 U.S.C. § 102(e) rejection can be overcome by antedating the filing date of the reference by submitting an affidavit or declaration under 37 C.F.R. § 1.131. MPEP § 2136.05. In light of this instruction, Applicant respectfully submits that Rosenberg is not prior art to the present invention as defined under 35 U.S.C. § 102(e). In particular, the subject matter of the present application was conceived of prior to the April 26, 2002 filing date of the Rosenberg reference.

In support of this position, Applicant submits herewith a copy of the Declaration of Shenshen Wu under 37 CFR § 1.131 submitted in the parent application 10/194,057, as well as the supporting documentation submitted therewith. The Wu Declaration demonstrates conception and reduction to practice of the invention, as presently claimed, before the effective filing date of the Rosenberg publication. For example, Exhibit A includes a letter from PSC indicating three variations of aliphatic prepolymers including dimerate polyester polyols sent to the inventor for evaluation prior to the April 26, 2002 filing date of the Rosenberg reference. Exhibit B includes a lab notebook page detailing that the prepolymer samples received from PSC were prepared from 4,4'-dicyclohexylmethane diisocyanate (H₁₂MDI) and a copolymer of polybutylene adipate and dimerate polyol. In addition, Exhibit B states that the objective of the evaluation of the samples is to evaluate the properties of the dimerate polyol as a golf ball cover.

The Wu Declaration further provides that all of the research conducted regarding light stable urethane covers and any improvements thereto was generally intended for use on a golf ball with a PRO V1 type of construction, *i.e.*, a core, an inner casing of ionomeric material, and a light stable cover. *See also* Exhibit C (showing that the PRO V1 construction prior to April 26, 2002 included a core, an ionomeric inner casing, and a light stable polyurethane cover).

Finally, Exhibit D provides the results of experiments performed prior to the April 26, 2002 filing date of Rosenberg using aliphatic polyurethane compositions for golf balls, where the prepolymers were formed from aliphatic diisocyanates and dimerate polyester polyols. Of the eight examples appearing in the table, three are directed to the prepolymers originally

sent to the inventor for evaluation and discussed above with respect to Exhibits A and B. In particular, prepolymers PMS 1297P, PMS 1298P, and PMS 1299P are the reaction product of an aliphatic diisocyanate (4,4'-dicyclohexylmethane diisocyanate (H₁₂MDI)) and a copolymer of polybutylene adipate and dimerate polyol. The table indicates that the prepolymer was cured using an aliphatic curing agent, *i.e.*, 1,4 BDO (1,4-butanediol). The material and cover hardness, compression and other physical properties of the golf ball, and performance data (including light stability and performance data) are also provided in the results. For example, the change in yellowness index (ΔYI) after 8 days for the compositions including PMS 1297P, PMS 1298P, and PMS 1299P is 10.6, 7.3, and 5.5, respectively.

Exhibits A-D demonstrate that the invention recited in the pending claims was conceived and reduced to practice prior to the filing date of the Rosenberg publication. Therefore, in light of the Wu Declaration, Applicant respectfully submits that, since Rosenberg is not prior art under 35 U.S.C. § 102(e), the rejections under 35 U.S.C. §§ 102(e) and 103(a) based thereon have been overcome.

In addition, Applicant respectfully submits that Sullivan does not disclose or suggest the present invention. In fact, the Examiner appears to rely on Sullivan as a secondary reference only for its disclosure of an additional layer disposed between the core and the cover (Office Action at Page 4) and, thus, because Rosenberg is unavailable as prior art, Sullivan alone cannot be used as grounds for an anticipation or obviousness rejection. As such, Applicant respectfully requests reconsideration and withdrawal the § 103 rejection as to claims 10-14.

The Rejection Based on JP02064174 and Sarpeshkar '810

Claims 15-18 were rejected under § 102(b) as anticipated by or, in the alternative, under 103(a) as obvious over Japanese Patent No. JP02064174 as provided on page 4 of the Office Action. In addition, the Examiner rejected claims 1-9 and 15-18 under § 102(b) as anticipated by or, in the alternative, under 103(a) as obvious over U.S. Patent No. 5,013,810 to Sarpeshkar *et al.* for the reasons set forth on pages 4-5 of the Office Action.

As recognized by the Examiner, neither JP02064174 or Sarpeshkar disclose or suggest the use of their respective compositions in golf balls. Because claim 15 has been rewritten to clarify that the composition recited therein is used in a structural layer of a golf ball, the Examiner's previous reasons for using these references appear to be moot. As such,

Applicant respectfully requests reconsideration and withdrawal of the §§ 102 and 103 rejections based on JP02064174 and Sarpeshkar.

THE DOUBLE PATENTING REJECTIONS

Claims 1-9 were rejected under the judicially created doctrine of obviousness-type double patenting as being obvious over claims 1-25 of U.S. Patent No. 6,476,176 and claims 1-11 of U.S. Patent No. 6,506,851. In addition, claims 1-3, 5-7, and 9-18 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being obvious over claims 1, 3-4, 10-20, and 29-32 of U.S. Patent Application No. 10/194,057. The claims of the '057 application have issued as U.S. Patent No. 6,867,279.

In response, Applicant submits herewith a Terminal Disclaimer in compliance with 37 C.F.R. § 1.321(c) in order to overcome the double patenting rejections. As such, Applicant respectfully requests that the double patenting rejections be withdrawn.

CHANGE IN ATTORNEY DOCKET NUMBER

Applicant submits herewith a Request for Change in Attorney Docket Number to change the docket number from 20002.0249A to 20002.0324. Applicant respectfully requests acknowledgement of this change on future correspondence relating to this matter.

CONCLUSION

All claims are believed to be in condition for allowance. Applicant invites the Examiner to contact the undersigned attorneys to discuss any issues pertaining to the patentability of the pending claims.

A Fee Sheet Transmittal is submitted herewith to pay for the Terminal Disclaimer. In addition, a Petition for Extension of Time is submitted herewith to extend the time for response one month to and including April 23, 2005.

No other fees are believed to be due at this time. Should any other fees be required, however, please charge such fee to Swidler Berlin LLP Deposit Account No. 195127, Order No. 20002.0324.

Respectfully submitted,
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